Gy 1045

Attachment H

COVER SHEET (PAGE 1 of 2)

May 1998 CALFED ECOSYSTEM RESTORATION PROPOSAL SOLICITATION

Proposal Title: Comprehensive Watershed Projects Monitoring, Evaluation & Inventory

Applicant Name: Rural California Alliance (RCA)

Mailing Address: 1020 12th Street, Suite 400, Sacramento, CA 95814

Telephone: (916) 447-4806

Fax: (916) 448-3154

Amount of funding requested: $ 524,845.00 for 3 years

Indicate the Topic for which you are applying (check only one box). Note that this is an important decision: see page __ of the Proposal Solicitation Package for more information.

- ☐ Fish Passage Assessment
- ☐ Fish Passage Improvements
- ☐ Floodplain and Habitat Restoration
- ☐ Gravel Restoration
- ☐ Fish Harvest
- ☐ Species Life History Studies
- ☑ Watershed Planning/Implementation
- ☐ Education
- ☐ Fish Screen Evaluations - Alternatives and Biological Priorities

Indicate the geographic area of your proposal (check only one box):

- ☐ Sacramento River Mainstem
- ☐ Sacramento Tributary: _____
- ☐ Delta
- ☐ East Side Delta Tributary: _____
- ☐ Suisun Marsh and Bay
- ☐ San Joaquin Tributary: _____
- ☐ San Joaquin River Mainstem
- ☑ Other: CALFED Solution Area and Trinity River Watershed
- ☐ Landscape (entire Bay-Delta watershed)
- ☐ North Bay: _____

Indicate the primary species which the proposal addresses (check no more than two boxes):

Specific Species are not applicable for this proposal.

- ☐ San Joaquin and East-side Delta tributaries fall-run chinook salmon
- ☐ Winter-run chinook salmon
- ☐ Spring-run chinook salmon
- ☐ Late-fall run chinook salmon
- ☐ Fall-run chinook salmon
- ☐ Delta smelt
- ☐ Longfin smelt
- ☐ Splittail
- ☐ Steelhead trout
- ☐ Green sturgeon
- ☐ Striped bass
- ☐ Migratory birds

COVER SHEET (PAGE 2 of 2)

May 1998 CALFED ECOSYSTEM RESTORATION PROPOSAL SOLICITATION

Indicate the type of applicant (check only one box):

- ☐ State agency
- ☐ Public/Non-profit joint venture
- ☐ Local government/district
- ☐ University
- ☐ Federal agency
- ☑ Non-profit
- ☐ Private party
- ☐ Other: _____

Indicate the type of project (check only one box):

- ☐ Planning
- ☑ Monitoring
- ☐ Research
- ☐ Implementation
- ☐ Education

By signing below, the applicant declares the following:

(1) the truthfulness of all representations in their proposal;

(2) the individual signing the form is entitled to submit the application on behalf of the applicant (if applicant is an entity or organization); and

(3) the person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section II.K) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

Maurice L Payne

(Signature of Applicant)

TABLE OF CONTENTS

II. Executive Summary

a. Project Title and Applicant

- TITLE: Comprehensive Watershed Projects Monitoring, Evaluation & Inventory.
- APPLICANT: The Rural California Alliance (RCA).

b. Project Description & Primary Biological and Ecological Objectives

The proposed project will promote and enhance wise stewardship of natural resources by monitoring and evaluating grant-funded watershed projects throughout the Bay-Delta and its watersheds. This project will increase networking and information sharing, enhance project comparisons, increase available information, assist in analyzing past grants, and reduce administrative burdens on grantor agencies.

To complete this project, RCA will obtain staff and services from the Regional Council of Rural Counties (RCRC) and their associated Environmental Services Joint Powers Authority (ESJPA), with whom we have close cooperation. The project is proposed as a collaborative effort between RCA, the University of California at Davis (UCD) and the CALFED agencies. We will work closely with the agencies to ensure that the appropriate data is collected, processed and placed into a usable format for the individual agencies.

RCA is proposing two related tasks for this project: a comprehensive review of the 16 Proposition 204 funded projects and an enhancement of the UCD Information Center for the Environment (ICE) database and Geographical Information System (GIS) modeling to provide additional information for approximately 500 related watershed grants. The project will gather pertinent information from watershed projects into data sets reporting the distribution, condition, abundance or other descriptive aspects of status and trends of environmental features of interest. Data sets collected from project updates and reports may include, for example, standardized biological surveys, water chemistry reports, measurements of river flows, and assessment of levees for compliance with federal standards. The specific objectives of the project include the following:

1. Enhancing the ICE data bank for all CALFED related watershed projects
2. Providing an effective resource for local, state and federal planning
3. Mapping the interrelationships between various CALFED agency projects
4. Creating a unique, centralized resource of state watershed projects data

c. Approach/Tasks/Schedule

There are three primary tasks to be completed for this proposed project:

1. Add findings and other report data to the ICE database for CALFED related projects.
2. Monitoring and evaluation of 16 Proposition 204 grant projects.
3. Compile findings from above tasks into both tabular and relational (GIS) databases and make available through the ICE World Wide Web servers at UCD.

Task one will begin immediately upon announcement of grant funding and continue until completed, within the grant term. Task two will begin immediately as well; however, the bulk of the work will be conducted after the completion of the 16 Proposition 204 grant projects. Task three will be completed as the data is collected, throughout the project's time period.

d. Justification for Project & CALFED Funding

The proposed project will provide information to help CALFED and the State Water Resource Control Board satisfy their four common objectives: provide good water quality, improve and increase aquatic and terrestrial habitats, reduce the risk from catastrophic failure of Delta levees, and reduce the risk for catastrophic wildfires. By providing at once a tool for evaluating grant projects' consistency with CALFED objectives, a tool for focusing future projects more efficiently on necessary or reproducible tasks without duplicating efforts, and a tool for local, regional and statewide watershed and land use planning, the Watersheds Monitoring, Evaluation & Inventory project will be an important resource for all future watershed projects throughout the state. In addition, through the development of the database the project will provide local planners and decision-makers with the opportunity to learn from the positive and negative results of prior and/or related projects.

e. Budget Costs & Third Party Impacts

The total cost of this project is $524,845.00. There are no negative third party economic impacts in association with this proposed project. However, this project will have significant positive impacts on numerous jurisdictions, organizations, planners and decision-makers working on future and/or related projects.

f. Applicant qualifications

RCA will contract for all implementation with RCRC, an active participant in the CALFED Bay-Delta Program. RCRC's staff includes professionals with experience in scientific research, statistical evaluations, data gathering and data-mapping, program implementation, inter-agency communications and many other areas related to the proposed project. Many of the existing projects lie within their member counties. RCRC's well-established networks in these areas will facilitate information gathering.

g. Monitoring & Data Evaluation

The monitoring of this project will be broken down into evaluation of the data gathering process and evaluation of the end product. Process monitoring will be completed in-house by our experts, outside peer review, and interested CALFED parties. Evaluation of the end products, database and GIS maps will be accomplished via feedback from the individual and institutional (i.e. CALFED) end users.

h. Local Support, Coordination with Other Programs & Compatibility with CALFED Objectives

RCA is a successful coordinator of regional and local programs. The proposed project depends upon effective interaction with the sixteen Proposition 204 grantees. The proposed project has as its primary mission the increased efficiency of grant-funded projects in support of CALFED objectives, and the project will furthermore disseminate in readily useable format the data generated in carrying out statewide watershed programs.

ICE has agreed to support RCA in conducting this project (see letter of support). ICE has developed its own watershed inventory program that includes information from many of the watershed concentrated in Bay-Delta area. The proposed Monitoring and Evaluation Project for the sixteen Proposition 204 projects will be added to this data bank.

Comprehensive Watershed Projects Monitoring, Evaluation & Inventory

Rural California Alliance
1020 12th Street, Suite 400
Sacramento, California 95814

Telephone (916) 447-4806 Facsimile (916) 448-3154

Non-Profit Organization
501 (c) (4)

Tax Identification Number 68-0096731

Principal Contact: Marcia Basque, Executive Director

This Proposal is Submitted by the Rural California Alliance in Cooperation with the Twenty-Seven Member Counties of the Regional Council of Rural Counties

RFP Project Topic: Watershed Stewardship

IV. Project Description

a. Project Description and Approach

Every day news headlines reinforce how important water is in California. From salmon restoration to drinking water needs, from urban sewage treatment to limited water supplies, the importance of water resources is growing. California's quality of life and economy is inextricably linked to water. Whether viewed as resource or commodity, water is the basis of our agricultural, municipal, industrial, environmental and aesthetic well being and has been alternately taken for granted, abused, exploited, worshipped, and prayed for. Yet it is only recently that a conscious effort has been made to coordinate agencies and individuals to effectively manage and regulate land use as it applies to watershed management.

Problem

There are currently major gaps in communication between the parties performing watershed projects and the governmental institutions funding them. Though many important projects continue to be completed each year, the knowledge gained from the projects is in reports locked in a cabinet and not shared. Local jurisdictions, and non-profits are viewed as the primary vehicles to restore, protect and manage fisheries; to ensure and protect water quality; to create management plans; and to serve a manifold of other vital watershed management functions. How will all these various groups – local, regional, public and private – coordinate their efforts and learn about related projects to meet these goals? How will the governmental and non-governmental environmental program staff keep abreast of the knowledge gained and results from the volumes of previous and current watershed projects? Who and where are the agency links?

Solution

The Watershed Projects Monitoring, Evaluation and Inventory Project will collect information from selected past and existing watershed projects and will report the distributions, conditions, abundance and other aspects descriptive of project status and findings. Data represented may include, for example, standardized biological and geological surveys, water chemistry, measurements of river flows, assessments of river flows, and assessment of levees for compliance with EPA federal standards – essentially, the data resulting from completed watershed projects. The project's goal is to produce a comprehensive database of this information from California's grant-funded watershed projects, making their work and findings available to all to increase the effectiveness of future projects and to allow for more informed management decisions.

- The first priority of the project is the monitoring and evaluation of the 16 projects currently funded by the Proposition 204 Delta Watershed Program. The second priority is the inventory of more than 500 additional watershed projects within the CALFED region.

b. Proposed Scope of Work

The proposed project will comprise the following tasks, organized in order of priority. Tasks one and two are not mutually dependent. Likewise, the GIS subtasks for either task can be

treated as separate components; however, we strongly recommend retaining this component, as the project's effectiveness will be significantly impacted without them.

Task 1: Completion of data inventory and project evaluation for the 16 Proposition 204 projects. Staff will identify and assess these projects within the Bay-Delta and its watersheds and prepare an inventory list providing an overview of these programs' descriptions, findings and status.

Subtask 1-1: Setup data fields for the 16 projects, based upon the following:

- Do the projects focus on hydrology, biology, geology, land use, vegetation maps or aquadata, remote imagery, pollutants, soil (pH and soil type), etc?
- Does the project include mathematical modeling, such as surface water modeling (i.e. MUDFLOW) or water chemical modeling (i.e. MINTEQ2A)?

Subtask 1-2: Input data available from quarterly reports and on-going findings, including:

- Methods being employed to meet the projects' goals
- Successes achieved
- Problems encountered and any steps taken to resolve them
- Other data available, for example: audiovisual material, collection, document or image (map, photo) or spatial data (GIS), etc.

Subtask 1-3: Acquire all 16 final reports as the 16 projects are completed. Input status of the projects, their findings, needs, funding and the data from the reports as they are made available. After creating a data set of all project parameters, assessment will comprise an overall summary of each parameter as it relates to water quality monitoring. A scientific review will be conducted, including research of relations among uncontrolled variables.

Subtask 1-4: Development of GIS maps outlining geographic area and project focus.

Task 2: Augmentation of current ICE project inventory of over 500 completed and on-going watershed projects statewide.

Subtask 2-1: Obtain most current database information from ICE project

Subtask 2-2: Contact individual project managers to determine current status of project; request final reports when available.

Subtask 2-3: Distill final reports and integrate that information into ICE database information.

Subtask 2-3-1: Determine specific resource issues addressed by each project, for instance: agriculture, air quality, biomass, dams, education/outreach, erosion control, fire control, fisheries, (freshwater, marine), water quality (nutrients, water temperature, conductivity, pH, salinity, pollutants (organic, heavy metals or pesticides). We will also include any specific taxonomic groups a project targets, for instance amphibians, fish, reptiles, plants, birds, invertebrates, mammals, etc

Subtask 2-3-2: Determine any changes in above variables effected by the projects and addressed in the project results.

Subtask 2-4: Generate GIS Map with outcome specific overlays.

GIS COMPONENT (subtasks 1-4 and 2-4)

We propose using a Geographical Information System (GIS) to perform an analyses of previously approved and completed Bay-Delta and watershed projects, as guided by the CALFED objectives. This process will gather all data pertaining to 16 projects funded under proposition 204, setup a geospatial database so that all interested parties will have easy access to the results in a variety of GIS formats. We are also proposing the generation of basemaps, which will locate over 500 projects, funded by CALFED and geographically illustrate the projects initial findings and ending results. This process of monitoring and evaluating the 16 projects will consist of several key steps of which a few are outlined below

- ***Identify specific region under evaluation.*** If a digital representation of the areas region is available we will adopt the coverage. If not, then in house digitizing will take place to make the necessary data sets accessible to the public.

- ***Create associated metadata for digitized ArcInfo Coverage.*** Since the idea is to make accessible any and all data sets that we compile, the necessary metadata is crucial. (Metadata, is the essential information about the data we have compiled. Such as the data type, source, mapping unit, aerial extent, date of creation or update, items in coverage, contact person, coordinate system description, etc.)

- ***Analysis of projects' milestones and/or end results from their recorded data.*** Analysis of all data entered into database to assist in the production of the digital coverage's illustrating the initial findings and outcomes of the projects.

- ***Basemap generation based on data collected/aggregated/digitized, etc.*** After the appropriate data sets have been compiled, input, digitized, and evaluated as guided by the CALFED objectives, several thematic basemaps will be generated. The first basemap will show any quarterly milestones recorded. A second basemap will be generated to geographically illustrate all discoveries recorded by the investigative party.

- ***Creation of ArcInfo Export Coverage files for distribution via someone (ICE/UCB?) and other formats.*** We will generate an Export Coverage file format for every manual map we digitize in house for all interested parties who have at their disposal a basic GIS. For those without GIS software or another means to import the data, we will convert all Info Grids into a variety of image formats.

To accomplish these tasks, we are proposing the purchase of GIS hardware and software to supplement our current system. This is the most efficient and economical method because we are proposing to transform all paper base data sets to digital formats and to make these results pertaining to the projects more readily available through the server at UCD. UCD will be only housing the data we create through the utilization of the software and hardware we are

requesting, which is the only method for transforming this paper base data into digital format. We are saving a significant amount of money using the services at UCD; purchasing the necessary hardware to house all of the data would be astronomically expensive.

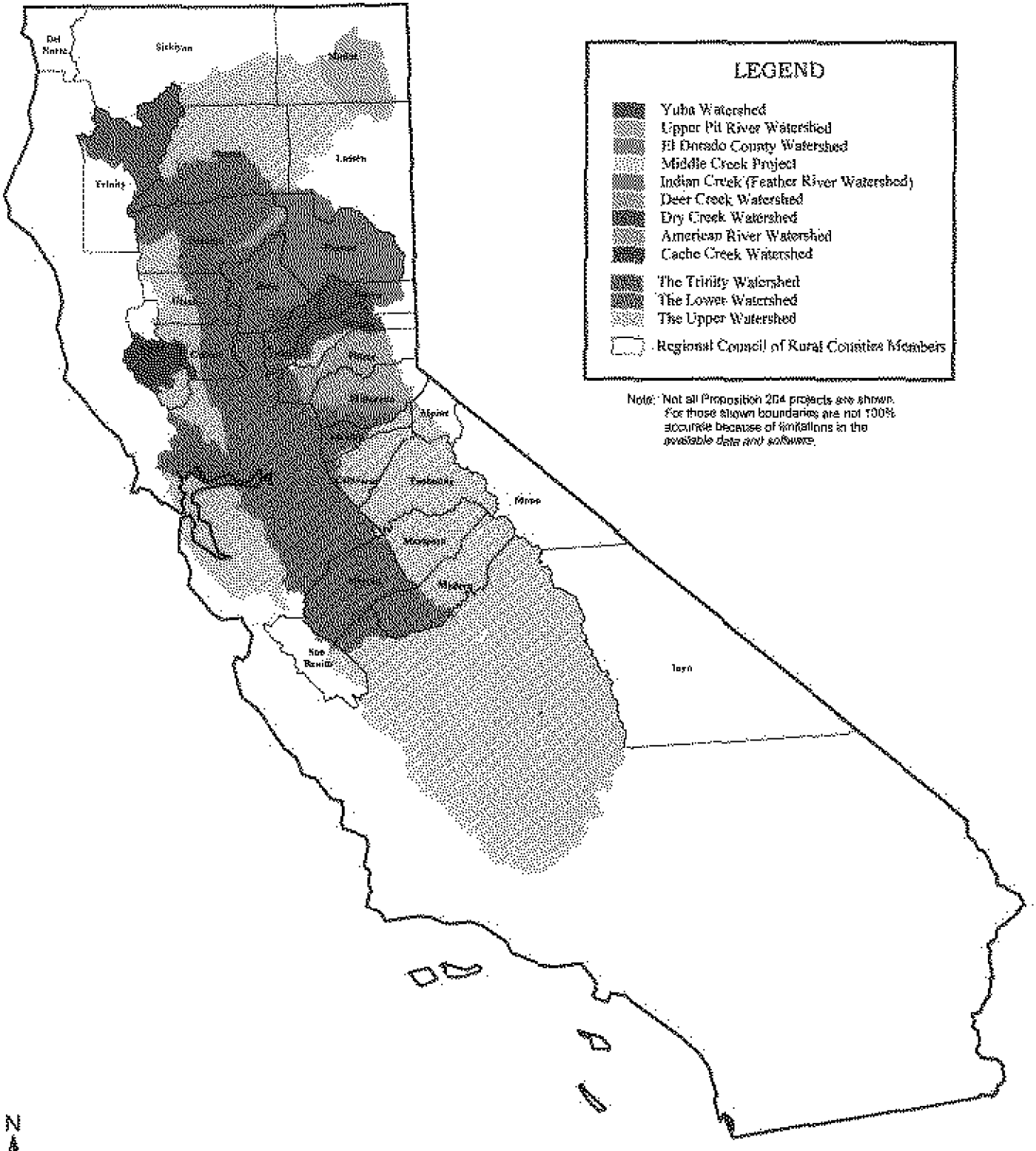
Task/ Subtask	Work	Schedule (Months)	Task Budget	Subtask Budget	Task Deliverable
Task 1	**Investigation and categorization of the 16 prop 204 grants**		**$350,460.00**		
1.1	Project inventory	1-30		$28,000.00	
1.2	Scientific and technical review	1-30		$102,000.00	
1.3	Solicitation with outside experts if necessary	1-30		$15,000.00	
1.4	Coordinating and verifying data with project proponents	1-30		$40,800.00	Database and Maps of projects capable of tying into UCD/ICE project.
1.5	Solicitation of feedback from peers	1-30		$3,400.00	
1.6	Development of relational Database of projects	6-36		$2,240.00	
1.7	GIS input and analysis	6-36		$74,480.00	
1.8	Compilation of feedback from end users	10-35		$2,100.00	
1.9	Changes of database and GIS subsequent to feedback	12-36		$4,900.00	
1.10	Develop report and recommendations	33-35		$10,200.00	
1.11	Edit final report	36		$5,100.00	
Task 2	**Augmented Inventory of all Watershed Projects Currently Catalogued in UCD/ICE project**		**$154,385.00**		
1.1	Project assesment of relevance to CALFED Objectives	1-30		$19,425.00	
1.2	Scientific and technical review	1-30		$23,587.50	
1.3	Solicitation of feedback from peers	3-30		$2,550.00	
1.4	Record research and analysis	3-30		$23,587.50	Augmentation of ICE Database and Maps.
1.5	Entry into relational database	3-30		$19,425.00	
1.6	Location input into GIS with hotlinks to Database	10-32		$38,850.00	
1.7	Compilation of feedback from end users	10-32		$2,100.00	
1.8	Changes of database and GIS subsequent to feedback	14-36		$4,900.00	
1.9	Develop report and recommendations	32-36		$6,800.00	

c. Geographic Boundaries of the project

Since the project includes compiling information from over 500 watershed projects statewide, the geographic scope is the entire CALFED Bay-Delta project area and watersheds draining into the Sacramento-San Joaquin Rivers Delta and the Trinity River.

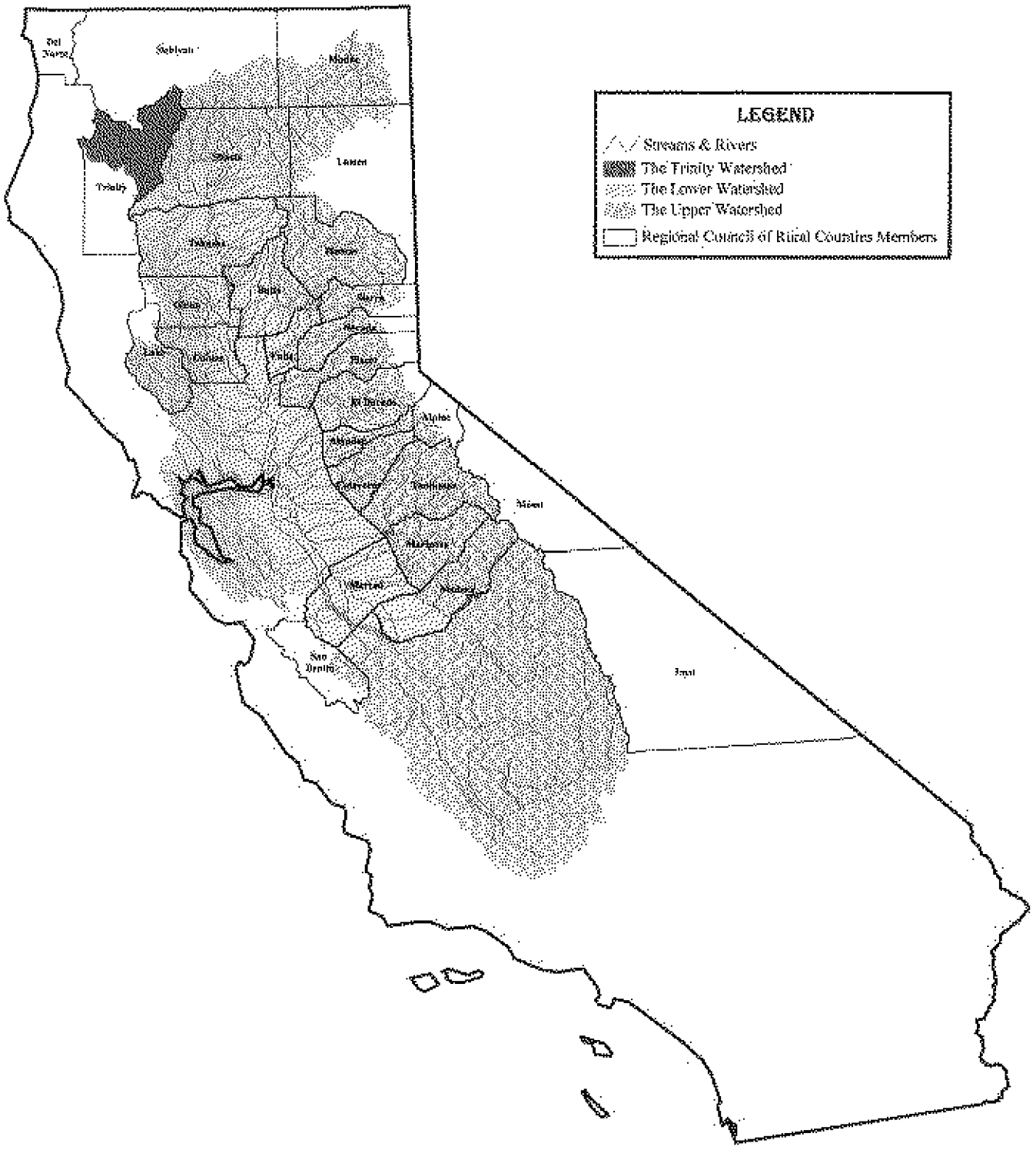
Preliminary Geographic Area
of
Proposition 204 Funded Projects Watershed's

(Not all Projects are shown)



I-011985

Project Inventory
Geographic Area



I-011986

d. Expected Benefits

Since the proposed project is not a direct watershed implementation, but rather the creation of a tool for improved implementation of other projects and other planning functions, the focus is not directly upon any one stressor, species or habitat. The completed project will benefit all stressor, species and habitat related projects indirectly, however, by providing a compilation of watershed projects data that can be applied to the preparation, planning and implementation of new and on-going projects.

The primary benefit of this project is improved management of future and on-going watershed projects conducted by RCA affiliates, jurisdictions, non-profits and government entities statewide. A secondary benefit is an evaluatory tool for CALFED to determine the progress being made towards their goals through statewide grant-funded watershed projects, beginning with the 16 Proposition 204 projects. Other benefits include:

- GIS mapping of projects illustrating benefits for all California watersheds over time.
- Better coordination of watershed projects conducted by various entities throughout the State.
- New projects can proceed from the findings and data produced by earlier projects.
- Planners can make use of data and findings from similar projects, similar regions and/or addressing similar problems and issues.
- A potential framework for an awards program to recognize outstanding watershed projects, should CALFED develop such a program.
- Watershed project information made available to anyone interested via Internet and Worldwide Web.

e. Background & Ecological, Biological and Technical Justification

In the last 2 years, some monitoring assessment work has been completed for the Bay-Delta area with short-term funding from federal agencies. Similarly, CALFED conducts comprehensive monitoring assessment for the Bay-Delta area itself, but there is currently no comparable program in place for the watersheds feeding it. This proposed monitoring project will provide an organizational structure and program resource to assist CALFED in planning and coordination with other agencies.

The proposed project will provide information supporting the Ecosystem Restoration Program Plan's (ERPP) objectives, including good water quality, improving and increasing aquatic and terrestrial habitats, and reducing the risk from catastrophic failure of delta levees.

The proposed project includes the development of a data set from the Anadromous Fish Restoration Program (AFRP) and the Central Valley Project Improvement Act (CVPI) fish restoration projects, reporting the distributions, conditions, abundance and other status and trends of environmental features of interest. Monitoring will include, for example, standardized biological surveys and associated action as well as water chemistry.

ICE has developed its own watershed inventory program that includes information from many of the watershed concentrated in Bay/Delta area. The proposed Monitoring Project for the 16

Proposition 204 projects will be added to this data bank. ICE has agreed to support the RCA in conducting this project.

f. Monitoring & Data Evaluation

Monitoring and evaluation of the project will be broken into monitoring of our data collection process and an evaluation of the final product. Ongoing evaluation will be accomplished via our in-house repository of knowledge and with peer review.

We will be utilizing the scientific expertise of Dr. Hassan Rezaie (see bio in section VI) in the evaluation of these grants and in their fit into the overall CALFED objectives. Although we do not anticipate this happening, in the event that a project focus contains information outside the scope of Dr. Rezaie's knowledge, we will bring in outside experts.

Through the RCRC, we have extensive contacts with individuals knowledgeable in the water arena. We will be tapping these resources at each step of the project's implementation.

A central precept of this project is that this data set will be useful to the CALFED member agencies. In line with this we, will integrate our work closely with CALFED offices.

End users of the final products, relational database and maps, will be given the opportunity to provide feedback regarding the utility of the database. We envision these products being made publicly available via FTP in a variety of formats over the Internet from UCD. This site will include an email link to our office asking end users for feedback about the format. This input from the end users will be collated and integrated into the database and maps on a quarterly basis through the end of the grant period.

CALFED staff will also be solicited at the beginning of the project and later on for feedback regarding the usefulness of the database for their evaluation purposes. This information would then be incorporated into the final structure of the database.

Potential for planned coordination and integration of monitoring/data evaluation:
Of necessity we will be working closely with the UCD/ICE project in garnering user feedback for the evaluation of the end products.

A potential alternative to this monitoring proposal would be to hire outside consultants. We believe that this proposal is superior because:

- We have a greater understanding of our mission.
- Utilizing this method does not preclude the use of outside expertise.
- Internal evaluation is more cost-effective.
- Peer review will fulfill any need for objectivity in evaluation of projects that outside consultants would otherwise provide.

g. Implementability

This proposed project is an essential step towards wise water stewardship in California. Local support is afforded by our working relationship with RCRC and its 27 member counties, and by RCRC's extensive relationships with state, regional and local jurisdictions, agencies and

organizations. Impartiality will be maintained during the water advocacy and other implementations of this proposed project; RCA includes in its articles of incorporation the prohibition of partisan and lobbying activities. We can take advantage of all points of view by leveraging the collective expertise of RCRC staff, ICE staff, CALFED staff, project managers and the other state and federal agencies.

Since this proposed project does not involve any work directly on the watersheds, or any other direct environmental impacts, compliance with laws, regulations and the need for permits is not an issue.

V. Costs And Schedule to Implement Proposed Project

A. Budget Costs

Please refer to the Cost Breakdown Table for Task Budget details.

Unless a federal or state agency takes it upon themselves, a program of this scope could not be completed without grant funding. The benefits will increase cost and end-result efficiencies for all ensuing watershed planning and projects within the affected areas of the State. Each of the tasks can be funded individually and either with or without the GIS component. Funding for the common GIS component is essential if the GIS aspect of the proposal is to be implemented. Given the complexity and geographic spread of the proposed data set it is most highly recommended that the GIS component be left intact in order to insure the usability of the data. Although funding Task 1 or Task 2 alone will provide significant benefits, the proposed program will be far more beneficial if funded in its entirety, including all GIS components.

By obtaining staff and services from, the program receives the improved effectiveness and cost efficiencies of an existing staff that is trained and experienced in water issues, science, program evaluation, GIS implementations and other skills critical to the successful completion of the program. The billing rates for RCRC are included in the budget tables and are inclusive of all operating expenses and overhead. Project Coordination, including report preparations, communications and general coordination of all phases of the project activities are also included in the budget tables. Additional subcontracting should not be required to complete the program as proposed, but if it becomes necessary, an RFP process will be employed.

While the proposed program will coordinate and cooperate with ICE, CALFED and numerous other organizations and jurisdictions throughout its implementation, no additional funds are required by any partner groups.

The funds requested are sufficient to complete all phases of the proposed program. No additional costs are anticipated for the program; the program that is funded will be completed as proposed.

B. Schedule Milestones

Schedule milestones are included in the attached tables (see next two pages).

C. Third Party Impacts

There are no negative third party impacts anticipated during the implementation of this program.

Budget Costs

Task Activities	*# of units*	*Hours per*	*Total hours*	*Rate*	*Labor Costs*	*Direct Costs*	*TOTAL*
Investigation and catagorization of the 16 prop 204 grants							
Project inventory	16	25	400	$70.00	$28,000.00	$0.00	$28,000.00
Scientific and technical review	16	75	1200	$85.00	$102,000.00	$0.00	$102,000.00
Solicitation with outside experts if necessary					$0.00	$15,000.00	$15,000.00
Coordinating and verifying data with project proponents	16	30	480	$85.00	$40,800.00	$0.00	$40,800.00
Solicitation of feedback from peers			40	$85.00	$3,400.00	$0.00	$3,400.00
Development of relational Database of projects	16	2	32	$70.00	$2,240.00	$0.00	$2,240.00
GIS input and analysis	16	66.5	1064	$70.00	$74,480.00	$0.00	$74,480.00
Compilation of feedback from endusers			30	$70.00	$2,100.00	$0.00	$2,100.00
Changes of database and GIS subsequent to feedback			70	$70.00	$4,900.00	$0.00	$4,900.00
Develop report and recommendations	1	120	120	$85.00	$10,200.00	$0.00	$10,200.00
Edit final report	1	60	60	$85.00	$5,100.00	$0.00	$5,100.00
Travel	16	24	384	$85.00	$32,640.00	$0.00	$32,640.00
Per diem	30			$100.00	$0.00	$3,000.00	$3,000.00
Project Coordination			380	$70.00	$26,600.00	$0.00	$26,600.00
Totals					**$332,460.00**	**$18,000.00**	**$350,460.00**
Augmented Inventory of all Watershed Projects Currently Catalogued in UCD/ICE project							
Project assesment of relevence to CALFED Objectives	555	0.5	277.5	$70.00	$19,425.00	$0.00	$19,425.00
Scientific and technical review	555	0.5	277.5	$85.00	$23,587.50	$0.00	$23,587.50
Solicitation of feedback from peers			30	$85.00	$2,550.00	$0.00	$2,550.00
Record research and analysis	555	0.5	277.5	$85.00	$23,587.50	$0.00	$23,587.50
Entry into relational database	555	0.5	277.5	$70.00	$19,425.00	$0.00	$19,425.00
Location input into GIS with hotlink to Database	555	1	555	$70.00	$38,850.00	$0.00	$38,850.00
Compilation of feedback from endusers			30	$70.00	$2,100.00	$0.00	$2,100.00
Changes of database and GIS subsequent to feedback			70	$70.00	$4,900.00	$0.00	$4,900.00
Develop report and recommendations	1	80	80	$85.00	$6,800.00	$0.00	$6,800.00
Project Coordination			188	$70.00	$13,160.00	$0.00	$2,100.00
Total					**$154,385.00**	**$0.00**	**$154,385.00**
Items common to both tasks							
GIS equipment to supplement existing system	1				$0.00	$20,000.00	$20,000.00
Total Requested							**$524,845.00**

Schedule milestones

We will be evaluating the end result of ongoing grants, some of which may not be completed for up to three years. Since we can not catagorize their end results until they are finished, our tasks have broad time schedules.

Task	Grant Month
Investigation and catagorization of the 16 prop 204 grants	
Project inventory	1-30
Scientific and technical review	1-30
Coordinating and verifying data with project	1-30
Solicitation with outside experts if necessary	1-30
Solicitation of feedback from peers	1-30
Development of relational Database of projects	6-36
GIS input and analysis	6-36
Compilation of feedback from endusers	10-35
Changes of database and GIS subsequent to feedback	12-36
Develop report and recommendations	33-35
Edit final report	36
Augmented Inventory of all Watershed Projects Currently Catalogued in UCD/ICE project	
Project assesment of relevence to CALFED Objectives	1-30
Scientific and technical review	1-30
Solicitation of feedback from peers	3-30
Record research and analysis	3-30
Entry into relational database	3-30
Location input into GIS with hotlink to Database	10-32
Compilation of feedback from endusers	10-32
Changes of database and GIS subsequent to feedback	14-36
Develop report and recommendations	32-36

VI. Applicant Qualifications

This project will accomplish cost efficiencies by organizing and implementing the resources of RCRC and its twenty-seven member counties. RCRC has experience managing grant programs efficiently and cost-effectively.

The management of RCRC directs staff to undertake the work, with the assistance of specific technical consultants, and oversees its progress. The staff is responsible not only to management, but to the delegates from member counties, who play an active role in all programs. This process for managing tasks has worked well in the management of over $2 million in grant projects, and we propose to continue using it for tasks funded by CALFED.

The staff resources at RCRC constitute a comprehensiveness of rural, policy, environmental science, program evaluation, GIS and program expertise that provide a unique blend of talent and experience. Within RCRC, Ms. Marcia Basque oversees the work of and coordinates the schedules of her staff: Mr. John Brooks, Mr. Anthony Farrington, Dr. Hassan Rezaie, Mr. Paul Morales, Mr. Andrew Griffin and others.

Ms. Marcia L. Basque, since 1976, has been the Executive Director for the Regional Council of Rural Counties (RCRC), an organization of twenty-five rural counties. She has served since 1986 as Executive Director for the Rural California Alliance, a non-profit organization. She served over 14 years in supervisorial professional positions on the staffs of the Assembly and the Senate. In her capacity as Executive Director, she is responsible for all facets of management, from finance to strategic planning for RCRC, and she has taken an active role in reshaping a variety of local-State intergovernmental policies and regulations that impact the small rural counties.

She has an extensive background in effective organizational management and possesses a wide breadth of knowledge in governmental liaison services. Her highly developed interpersonal skills have given her a unique insight into the methods of government agencies at all levels used to interpret an executive public policy. She has established a respected presence with and access to legislators and staff, County Supervisors, key executive personnel throughout all State and Local Agencies, various Boards and Commissions, allied trade associations, and the financial business community, including underwriters and bond counsel.

She is responsible for managing all aspects of the continuing development and implementation of the successful California Rural Home Mortgage Finance Authority (Rural Gold), which was established in 1993 to provide affordable financing and Lease-Purchase Programs for first-time home buyer residents in the rural counties. She also directs the activities involved in the four (4) additional Joint Powers Authorities relating to Local Government Finance, Solid Waste Issues, Healthcare Services and Juvenile Boot Camp Operations.

John Brooks, Program Director, brings knowledge and expertise from his experience as Associate Waste Management Specialist with the CIWMB Office of Local Assistance. Since 1996, he has worked closely with member counties providing used oil, HHW, and recycling technical support and regional program planning and coordination – including planning

document consulting, compliance assistance, and regional grant proposal development. His solid waste and recycling expertise has been acknowledged with an appointment by Governor Wilson in 1997 to the State of California Local Government Technical Advisory Committee (LGTAC). Mr. Brooks leads highly qualified staff; maintains working relationships with the California Integrated Waste Management Board, State Water Resources Control Board and Federal and State Environmental Protection Agency on recycling and solid waste disposal issues; works with legislative advocate and key solid waste interest groups as necessary to ensure that rural solid waste needs and concerns are addressed; oversees over $2,000,000 in grant programs; and develops programs for member counties. Mr. Brooks has a B.S. Degree in Natural Resources Planning and Interpretation from California State University, Humbolt.

Dr. Hassan Rezaie, Research Manager, is a professional scientist with a background in natural and environmental sciences, including applied geology, aqua chemistry, waste minimization, resource recovery, recycling and related environmental issues. Dr. Rezaie has M.S. and Ph.D. Degrees in Applied Geology and Environmental Sciences. He will lend his qualifications and expertise to the program in evaluating, researching and developing scientific reports on the watershed projects and solutions. Much of his past research has concentrated on industrial byproducts and their mobilization effect on groundwater and also on mud discharge in river ports and estuarine as well as producing lightweight aggregate from contaminated harbor mud and industrial residues. His current research interests include viable economical alternatives to Hazardous Waste Disposal and other environmental hazards.

Mr. Anthony Farrington has served as the Special Programs Coordinator for the Regional Council of Rural Counties since 1997. In this capacity he has been the lead staff representative for RCRC on all water related issues, including staff to the RCRC Water Committee. Under his stewardship, the RCRC water program has initiated several innovative efforts to assist rural counties in addressing a broad range of water issues. He holds a B.A. in International Relations from the University of California, Davis.

Mr. Farrington has directed RCRC's four (4) pilot projects funded by the Sierra Nevada Ecosystem Project (SNEP), which receives funds from the California Department of Forestry and Fire Protection. He has also coordinated RCRC's Ground Water Management Program, which assists counties by enhancing ground water resources planning programs at the county level, in a comprehensive, cooperative manner, consistent with the Ground Water Planning Act (AB3030) of 1992.

Mr. Farrington has developed a strong understanding and technical capacity regarding the diverse aspects of rural water policy. His strengths lie with his direct contacts and understanding of individual watershed efforts and those directing locally-based programs.

Paul Morales, GIS Coordinator, has a background in geography and will be charged with conducting the use of GIS for the proposed project. Mr. Morales' background includes experience in remote sensing analysis of the environment via infrared photos and sophisticated software, environmental modeling using GIS, and spatial analysis of geographic data, and possess an exceptional knowledge of the Environmental Systems Research Institute's GIS software.

Andrew Griffin, Program Evaluator, has a professional and academic background in Psychology and program analysis. He is responsible for comprehensive, ongoing program monitoring and evaluation. Mr. Griffin is proficient in the methodology of data collection and analysis, as well as in the use of various statistical analysis software, and will be charged with conducting statistical analysis and evaluations for the proposed project. Mr. Griffin received a B.A. in Psychology with Honors from the University of California, Santa Cruz.

I-011995

VII. Compliance with standard terms and conditions

As per a June 26, 1998 discussion with Joe Karkoski, U.S. EPA Region 9 – Water Division, Northern California Office, the appropriate federal forms, including terms and conditions, will only be necessary upon grant award, and this CALFED solicitation category, *Local Watershed Stewardship*, requires no forms when submitted.

RCA will comply with all required terms and conditions in carrying out this project.

Supporting Documents

Attachment 1: Resumes

ANTHONY W. FARRINGTON
Regional Council of Rural Counties (RCRC)
1020 12th Street, Suite 400
Sacramento, CA 95814
(916) 447-4806 fax(916) 448-3154

EXPERIENCE

September 1996 to Present

SPECIAL PROGRAMS COORDINATOR
Regional Council of Rural Counties (RCRC)
Lead staff representative for twenty-seven rural counties on all water related issues, including staff to the RCRC Water Committee. Responsible for the planning and implementation of four county pilot projects that utilize select findings from the Sierra Nevada Ecosystem Project (SNEP) Report. Program Coordinator for RCRC Groundwater Management Program. This program assists member counties in the enhancement and management of groundwater resources at the local level.

May 1996 to September 1996

SERVICE CORPORATION REPRESENTATIVE
California Manufacturer's Association
Employed by the California Manufacturers Association Service Corporation (CMASC), performing a variety of duties ranging from project development, membership sales and marketing.

May 1995 to September 1995

NATIONAL STEERING COMMITTEE COORDINATOR
Pete Wilson for President Campaign
Administered the organization of Governor Pete Wilson's National Steering Committee, recruiting distinguished members throughout the United States.

INTERNSHIPS

August 1996

THE REPUBLICAN NATIONAL COMMITTEE
Served the Committee during the 1996 Republican National Convention in San Diego.

June 1993 to

SENATOR DAVID A. ROBERTI, FORMER PRESIDENT OF THE CALIFORNIA STATE SENATE
Served Senator Roberti by performing press and constituent relations, legislative analysis, legislative monitoring and the drafting of press releases.

EDUCATION

MASTER'S DEGREE IN BUSINESS ADMINISTRATION (MBA)
California State University at Sacramento, Candidate for graduation, Fall, 2000.
BACHELOR'S DEGREE IN INTERNATIONAL RELATIONS
University of California, Davis, 1994.
ASSOCIATE OF ARTS DEGREE IN LIBERAL STUDIES
Mendocino Junior College

I-011998

John S. Brooks
Regional Council of Rural Counties
1020 12th Street, Suite 400
Sacramento, CA 95814
(916) 447-4806 Fax 448-3154

Program Director - Regional Council of Rural Counties (RCRC) Environmental Services Joint Powers Authority (ESJPA) January 1, 1996 -- Present.

Current projects include the implementation of a new used oil grant on behalf of 12 counties, a cooperative marketing pilot program, and the development and oversight of a permanent household hazardous waste facility providing service to fifteen rural counties.

Associate Waste Management Specialist August 1990 to December 1995 - Office of Local Assistance California Integrated Waste Management Board.

Major Projects:

- Project manager for cooperative marketing feasibility study. Initiated and guided development of an analysis of rural jurisdictions' potential for benefiting from joint collection, processing and marketing of recycled materials.
- Conceived and guided development of *The Rural Cookbook: Recipes for Successful Waste Prevention & Diversion Programs* in response to Assembly Bill 2494. The Cookbook (approximately 150 pages) is a compilation of successful waste diversion programs specific to the special needs of rural jurisdictions. It includes a California specific creative financing options section.

Appointments

- Appointed by Governor Wilson in 1997 to the Local Government Technical Advisory Committee
- Appointed to California Rural Development Council

Associations & Memberships

- American Society for Public Administration (ASPA)
- California Resource Recovery Association (CRRA)
- Municipal Management Assistants of Northern California (MMANC)
- Solid Waste Association of North America (SWANA)
- National Oil Recycling Association (NORA)

Awards

- Customer Service Award presented by the Secretary for Environmental Protection (Cal/EPA) and the Board Executive Director.
- Certificate of Appreciation from the Executive Director for Outstanding Achievement in the development of *The Rural Cookbook.*
- Received award for special assistance to rural counties at 1994 RCRC Legislative Appreciation Banquet (the only non-legislative state employee recognized).

Education

- M.P.A., University of Southern California - 2000
- B.S., Humboldt State University 1990
  Major: Natural Resources Planning & Communications
- Certified Economic Development Finance Professional, National Development Council
- Total Quality Management (TQM) training.

07/02/98
8:29 AM

Hassan Rezaie, Ph.D.

Research Manager

Environmental Services Joint Powers Authority (ESJPA)
Regional Council of Rural Counties (RCRC)
1020 12th, Suite 401
Sacramento, CA 95814

QUALIFICATIONS:

- A professional scientist with more than 6 years work experience in complex environmental projects. Major strengths include strong field and laboratory experience, leadership capabilities with scientific and technical know-how.
- Working knowledge of recycling, resource recovery, waste reduction, soil stabilization/solidification methods, soil and water sampling, and quantitative analytical methods in environmental sciences.
- Problem solving skills and familiarity with many computer operating systems, computer applications, environmental software, as well as state and federal environmental regulations and laws.

EDUCATION:

- Doctoral degree in Environmental Science, University of Erlangen-Nürnberg, Germany. 1997

  Thesis: An investigation in immobilization of organic and inorganic material in the mixture of contaminated fine grain demolished building waste material and industrial residues.
- Master degree in Applied Geology, University of Erlangen-Nürnberg, Germany. 1992

  Thesis: Solidification/Stabilization process of heavy metal in harbor mud by using industrial residues for instance red mud and fly ash.

PROFESSIONAL EXPERIENCE:

April 1998 - Present

Research Manager, Regional Council of Rural Counties (RCRC), Sacramento:

- Assist in developing, overseeing and implementing of RCRC research projects throughout member counties.
- Assist in developing protocols and managing Household Hazardous Waste from fifteen participating counties, including searching for viable alternatives to hazardous waste disposal.

(Aug. 1997- Feb. 1998)

Environmental Consultant, Port Moody Environmental Ltd., Vancouver, Canada:

- Conducted site investigation; provided chemical and physical analysis of soil contaminated by hydrocarbons, evaluated the results by using statistical methods; prepared environmental impact reports and recommendations.

(1994-1997)

Environmental Research Assistant, Department of Environmental Sciences, University of Erlangen-Nürnberg, Germany:

- Designed and conducted scientific research, chemical and physical analyses of water, soil and sediments.
- Analyzed landfill drainage, water and sediments. Analyzed and evaluated the concentration of heavy metals and organic substances in soil samples. Designed and built a Lysimeter for natural extraction methods of contaminated soil. Taught and trained undergraduate students.
- Used Solidification/Stabilization process and incineration method for metal impacted soil. Industrial byproducts like coal fly ash and red mud were used as a contaminant barrier material and converted to a lightweight aggregate (remediation product). Used solidified/stabilized soil as a foundation layer underneath topsoil and vegetative layer for the landfill. Performed a pilot project for producing lightweight aggregate from hazardous material on an industrial scale.
- Developed geochemical computer models of contaminant movement in the environment and prepared scientific reports.

(1990-1994)

Research Assistant, Department of Geology, University of Erlangen-Nürnberg, Germany:

- Developed a cost effective and environmentally safe process and a reliable and economical system of cleaning contaminated soil and industrial byproducts.
- Involved in set-up of analytical section of landfill project. Analyzed and evaluated landfill drainage. Analyzed and identified a high concentration of pesticide (DIURON and MCPA) pesticides in landfill material. Evaluated the data by using statistical methods.
- Removal and disposal of river mud settling in the basins of German estuarine and river harbors; developed a method for stabilization and solidification process of heavy metal in harbor mud.

COMPUTER SKILLS:

- Computer Application, Languages and Software:
  BASIC, HTML, MS-Word, WP, Access, Excel, SPSS, AutoCAD, Paint Shop Pro.
- Computer Operating Systems:
  DOS, UNIX (Solaris), Macintosh and Windows.
- Geological, hydrochemical, geochemical and mineralogical software: MINTEQA2, DIFFRAC-AT, GIS.

LANGUAGES: English, German, and Persian.

PROFESSIONAL AFFILIATIONS:

- German Geological Society (since 1993)
- German Environmental Geology Society (since 1994)
- Association of Professional Engineers and Geoscientists of B.C., Canada

AWARD RECEIVED:

- Awarded scholarship from Friedrich Naumann Foundation for 3 years research.

PUBLICATIONS:

REZAIE BOROON, M.H. (1997): An Investigation of re-using contaminated demolished fine grain building waste material and industrial residue as a lightweight aggregate, Dissertation, 173 Pages, 49 Tables, 44 Diagrams, 37 Photos, University of Erlangen-Nürnberg, Germany.

REZAIE BOROON, M.H. & BAIER, A. & LÜTTIG, G. W. (1997): Petrology and origin of the rocks of Dietfurt-Griesstetten in Neumarkt/Opf) in: U. Böhner: Geologie der Main-Donau Kanal, Vol. 10, 83-132, Erlangen, Germany.

REZAIE BOROON, M.H. & TOBSCHALL, H.J. (1996): Leaching behavior of contaminated fine grain building waste material. Journal of Conference Abstracts 1, Vol. 1, 506-507, Cambridge Publication, UK.

REZAIE BOROON, M.H. & LÜTTIG, G.W. (1996): Hydrological aspect of the reuse of harbor mud, sludge, Wasserwirtschaft, Vol. 9/96, 458-463. Verlag Vieweg, Wiesbaden, Germany.

REZAIE BOROON, M.H. & LÜTTIG, G. W. (1995): Contribution to reuse of harbor mud: Bautechnik Journal 72 /95, Vol.12, 803-809. Ernst & Sohn Verlag, Berlin, Germany.

REZAIE BOROON, M.H. & TOBSCHALL, H.J. (1994): Reusing process of silt size fractions of contaminated building waste material, Heidelberger Geowissenschaftliche Abhandlungen, Vol. 78; 25-26, Heidelberg, Germany.

REZAIE BOROON, M. H. (1993): Harbor Mud, an unpleasant River Freight and Possibilities of Disposal by Re-Use: Solidification/Stabilization process of heavy metal in harbor mud and industrial waste to a lightweight aggregate, Heidelberger Geowissenschaftliche Abhandlungen, Vol. 67; 124-125, Heidelberg, Germany.

REZAIE BOROON, M. H. (1992): Solidification/Stabilization process of heavy metal in harbor mud by using fly ash. Master thesis, 76 Pages, 9 Tables, 27 Diagrams, 17 Photos, University of Erlangen-Nürnberg, Germany.

ANDREW LAWRENCE GRIFFIN
2719 F Street, Apt. C
Sacramento, CA 95816-3751
(916) 442-8853

EDUCATION

University of California at Santa Cruz
Bachelor of Arts in Psychology,
Course work included: General research design and implementation, Research methodology for social sciences and statistical evaluation.
Graduated with Honors in the Major

City College of San Francisco
General Education

Sacramento City College
General Education
Academic Honors

California State University, Sacramento
Advanced course work in Social Science research methodology, Statistical analysis and evaluation.

EMPLOYMENT HISTORY

Environmental Services Joint Powers Authority
2010 12th Street, Suite 401 Sacramento, CA 95814
Program Evaluator: Responsible for overall design and implementation of evaluation efforts with regard to used-oil opportunity grants and management of contract with outside research agencies.

Eskaton Fruitridge Transitional Home
4256 Fruitridge Road, Sacramento, CA 95820
Administrator; Supervision of staff, hiring, managment of program, development and implementation of outcome studies, compliance with regulations, admissions.

Eskaton American River Manor
4741 Engle Road, Carmichael, CA 95608
Program Team Leader. Supervision of shift staff, evaluation of various program efficacy indicators, schedule of daily groups and activities, crisis intervention.

I-012003

Paul B. Morales
Environmental Services JPA
1020 12th Street, Suite 401
Sacramento, CA 95814
(916) 447-4806

EXPERIENCE:

GIS Coordinator --- April, 1998 to Present
Regional Council of Rural Counties, Environmental Services JPA
Design and maintain an Environmental Geographical Information System that would monitor the effectiveness of Used Oil Outreach Program. Create associated layers for location of used oil collection centers areas of illegal deposition, demographic data, waterways, vegetation, etc. Analyze large geographical spatial databases to bring forth-unforeseeable patterns. Data integration of various formats through data conversions. Assist Outreach Coordinator with public event participation.

Land Acquisition Analyst --- December, 1997 to April, 1998
Kaufman and Broad of Northern CA Inc. - Sacramento Region
Primary responsibility to test the feasibility and cost effectiveness of implementing a Geographical Information System to expedite land acquisition. Performed extensive interpretation of air photos, overlaid onto digital elevation models (DEM's), demographic data, and hot linked all projects to Metroscan Transcontinental land parcel databases. Also responsible for processing Geo-technical, Environmental Site Assessments, and Joint Trench Utility contracts for housing subdivisions.

Degree Programs in Physical Therapy --- February, 1996 to December, 1997
California State University, Sacramento
Responsible for creation and maintenance of Physical Therapy Student informational database, Clinical Affiliation database, data entry and implementation of Student Clinical Affiliation Matching Program (SCAMP). Assisted in the hypertext markup language (html) coding for Department web site. Pre-screened all physical therapy applicants. Assisted Department Secretary in managing front office.

EDUCATION:

California State University, Sacramento	May, 1999
Degree:	Geography
Minor:	Geology
Certificates:	Resource Planning

ADDITONAL EXPERIENCES:

Geographical Information Systems Lab Assistant	CSU, Sacramento
Remote Sensing of Environment Lab Assistant	CSU, Sacramento

I-012004

Supporting Documents

Attachment 2: Letters of Support

I-012005

UNIVERSITY OF CALIFORNIA, DAVIS

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO

SANTA BARBARA • SANTA CRUZ

DEPARTMENT OF ENVIRONMENTAL SCIENCE AND POLICY

ONE SHIELDS AVENUE
DAVIS, CALIFORNIA 95616-8576

June 26, 1998

Dr. Hassan Rezaie, Research Manager
Regional Council of Rural Counties (RCRC)
1020 12th Street, Suite 400
Sacramento, CA 95814

Re: ICE DATA BANK

Dear Dr. Rezaie:

I am writing you to support your effort to obtain grant funding for the RCRC Watershed Monitoring Proposal.

We invite and encourage your participation in completing and inventory of watershed projects in California. This information will be added to existing project data in the Watershed Project Inventory (WPI) and the California Ecological Restoration Project Inventory (CERPI) on-line at the UC-Davis Information Center for the Environment (ICE). This Data will then be available to the public, both as a searchable database on the Internet and in a printed directory that will be mailed to participants.

We would be pleased to accept the data you collected from Watershed Projects. We can begin accepting data as soon as possible when it become available.

We are excited about Watershed Project Inventory and any assistance your programs can provide in collecting and investigating the data needed to implement your program.

I wish you great success with your endeavors and would be happy to help in any way I can.

Sincerely,

James F. Quinn
Professor